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| **1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **18** |
| 1  **H**  1.008 | **2** |  |  |  |  |  |  |  |  |  |  | **13** | **14** | **15** | **16** | **17** | 2  **He**  4.003 |
| 3  **Li**  6.941 | 4  **Be**  9.012 |  |  |  |  |  |  |  |  |  |  | 5  **B**  10.81 | 6  **C**  12.01 | 7  **N**  14.01 | 8  **O**  16.00 | 9  **F**  19.00 | 10  **Ne**  20.18 |
| 11  **Na**  22.99 | 12  **Mg**  24.31 | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | 13  **Al**  26.98 | 14  **Si**  28.09 | 15  **P**  30.97 | 16  **S**  32.07 | 17  **Cl**  35.45 | 18  **Ar**  39.95 |
| 19  **K**  39.10 | 20  **Ca**  40.08 | 21  **Sc**  44.96 | 22  **Ti**  47.88 | 23  **V**  50.94 | 24  **Cr**  52.00 | 25  **Mn**  54.94 | 26  **Fe**  55.85 | 27  **Co**  58.93 | 28  **Ni**  58.69 | 29  **Cu**  63.55 | 30  **Zn**  65.39 | 31  **Ga**  69.72 | 32  **Ge**  72.61 | 33  **As**  74.92 | 34  **Se**  78.96 | 35  **Br**  79.90 | 36  **Kr**  83.80 |
| 37  **Rb**  85.47 | 38  **Sr**  87.62 | 39  **Y**  88.91 | 40  **Zr**  91.22 | 41  **Nb**  92.91 | 42  **Mo**  95.94 | 43  **Tc** | 44  **Ru**  101.1 | 45  **Rh**  102.9 | 46  **Pd**  106.4 | 47  **Ag**  107.9 | 48  **Cd**  112.4 | 49  **In**  114.8 | 50  **Sn**  118.7 | 51  **Sb**  121.8 | 52  **Te**  127.6 | 53  **I**  126.9 | 54  **Xe**  131.3 |
| 55  **Cs**  132.9 | 56  **Ba**  137.3 | 57  **La**  138.9 | 72  **Hf**  178.5 | 73  **Ta**  181.0 | 74  **W**  183.8 | 75  **Re**  186.2 | 76  **Os**  190.2 | 77  **Ir**  192.2 | 78  **Pt**  195.1 | 79  **Au**  197.0 | 80  **Hg**  200.6 | 81  **Tl**  204.4 | 82  **Pb**  207.2 | 83  **Bi**  209.0 | 84  **Po** | 85  **At** | 86  **Rn** |
| 87  **Fr** | 88  **Ra** | 89  **Ac** | 104  **Rf** | 105  **Db** | 106  **Sg** | 107  **Bh** | 108  **Hs** | 109  **Mt** | 110 Ds | 111  **Rg** | 112  **Cn** | 113 **Nh** | 114 **Fl** | 115 **Mc** | 116 **Lv** | 117 **Ts** | 118 **Og** |

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| 58  **Ce**  140.1 | 59  **Pr**  140.9 | 60  **Nd**  144.2 | 61  **Pm** | 62  **Sm**  150.4 | 63  **Eu**  152.0 | 64  **Gd**  157.3 | 65  **Tb**  158.9 | 66  **Dy**  162.5 | 67  **Ho**  164.9 | 68  **Er**  167.3 | 69  **Tm**  168.9 | 70  **Yb**  173.0 | 71  **Lu**  175.0 |
| 90  **Th** | 91  **Pa** | 92  **U** | 93  **Np** | 94  **Pu** | 95  **Am** | 96  **Cm** | 97  **Bk** | 98  **Cf** | 99  **Es** | 100  **Fm** | 101  **Md** | 102  **No** | 103  **Lr** |